



Fleet Sustainability Dashboard (FleetDASH)

Federal Energy Management Program

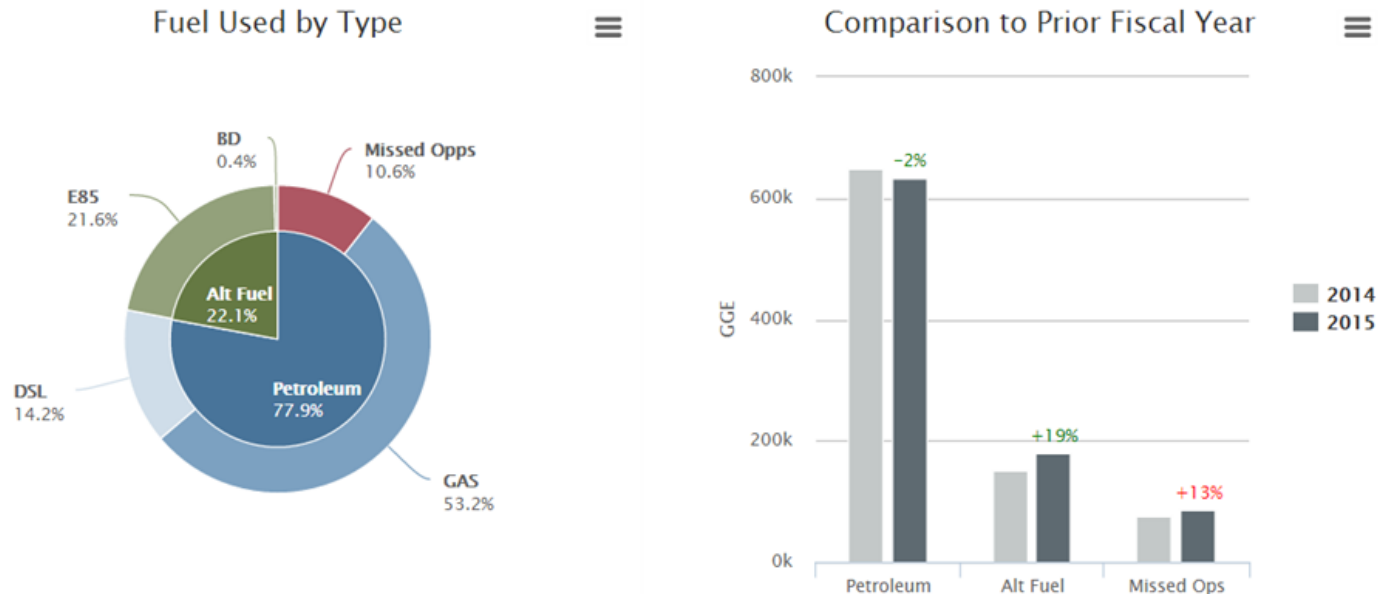
Mark Singer

NREL

January, 2017

- FleetDASH Overview
- Why FleetDASH?
- FleetDASH Tour
- Latest Updates
- FleetDASH Impact

FleetDASH is a fleet sustainability management tool



Credit card transactions are tracked for fleet fuel purchases

Provides fleet transparency and accountability

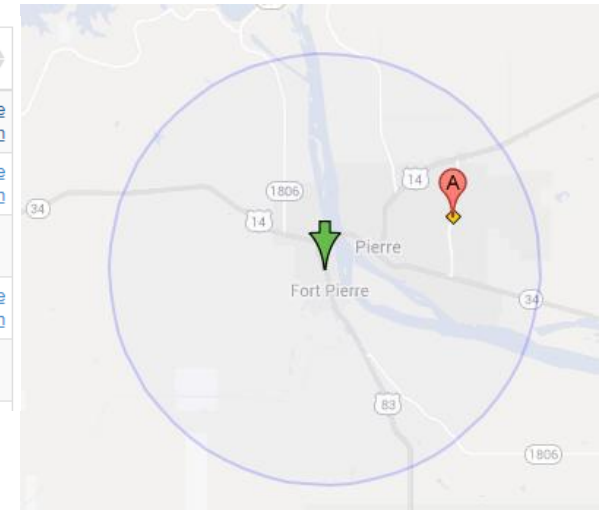
Who is purchasing fuel? How much fuel is purchased? Where is the fuel purchased?

<https://Federalfleets.energy.gov/FleetDASH>

Actionable Information: Transaction level detail updated monthly
Successes as well as “**Missed Opportunities**” are highlighted

Vehicle Fuel Type	Petroleum		Alt Fuels		Total Fuel Use GGE	Missed Opportunities	
	GGE	% of Total Fuel Use	GGE	% of Total Fuel Use		GGE	% of Total Fuel Use
FFV	368	100	0	0	368	210	57

Station Name	Address	City	State	Zip	Fuel Type Purchased	Date	GGEs Purchased	Missed Opportunity	Alternate Station
Cornor Pantry 22	904 N DEADWOOD ST	Fort Pierre	SD	57532	GAS	11/17/2015	16	Yes	Alternate Station
Shell Service Statio	621 W SIOUX AVE	Pierre	SD	57501	GAS	11/16/2015	15	Yes	Alternate Station
Farmers Union Oil Co	507 W 1ST ST	Faith	SD	57626	GAS	11/16/2015	18	No	
Cornor Pantry 22	904 N DEADWOOD ST	Fort Pierre	SD	57532	GAS	11/16/2015	14	Yes	Alternate Station
Midland Food & Fuel	404 SD HWY 14	Midland	SD	57552	GAS	11/10/2015	14	No	



Users can drilldown in organizations to single fuel purchases.

What are Missed Opportunities?

FFV purchases gasoline where public E85 station is within 5 miles.

FFV Purchased 17.15 gal. of Gasoline on 6/1/11 at:

Shell Service Station
3430 Northgate Blvd
Sacramento, CA 95834



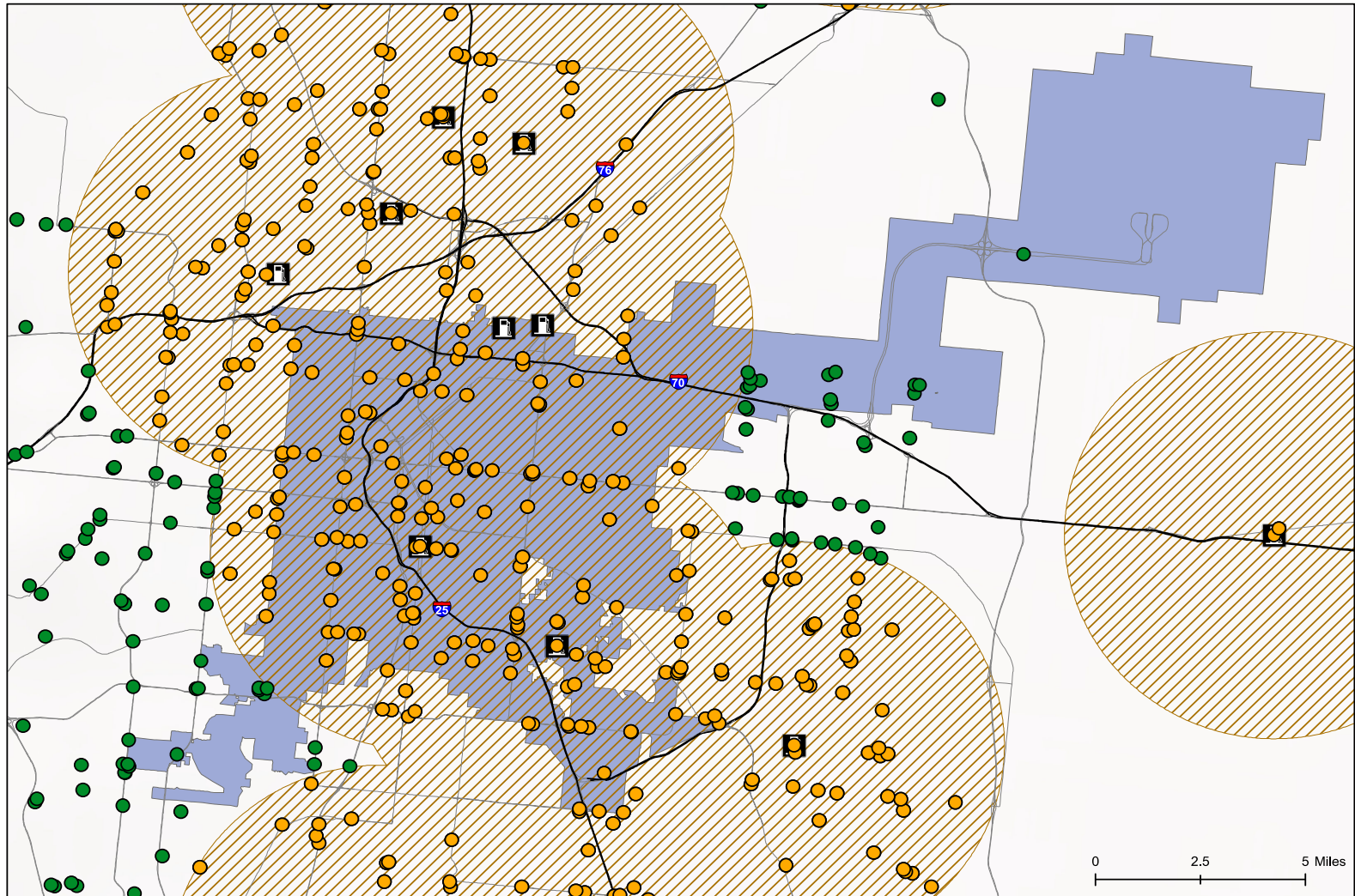
FFV could have purchased 17.15 gal. of E85 1 mi away:

Truxel Road Shell
3721 Truxel Rd
Sacramento, CA 95834
(station is public, accepts WEX)

<http://www.afdc.energy.gov/afdc/locator/stations/>

Scope of Missed Opportunities

Denver, Colorado: FFV Fuel Purchases



Stations where Federal FFV Purchased Fuel: 2011

- Stations Within 5 Miles of E85 Station
- Stations Farther than 5 Miles from E85 Station

- E85 Stations
- Public/WEX Accepted
- Denver City Limits

- 5 Miles around E85 Stations



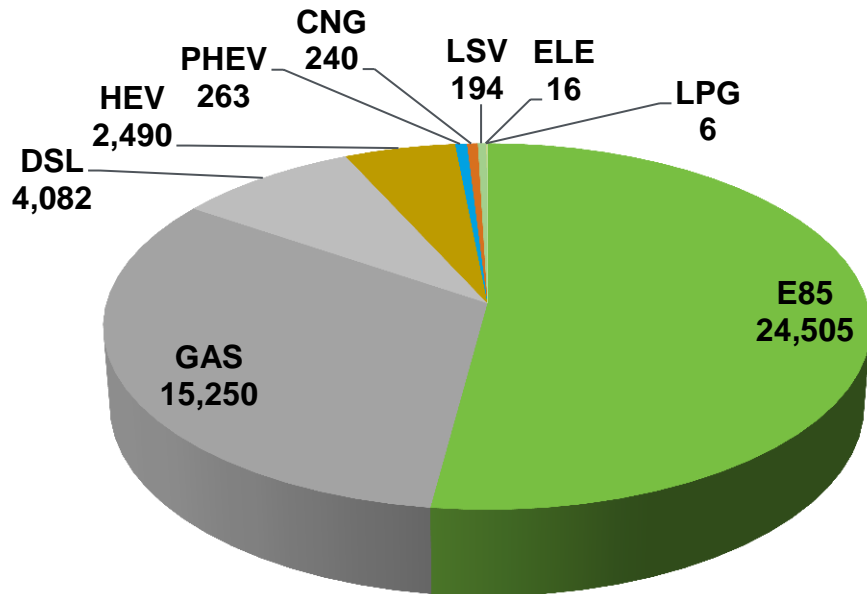
This map was produced by the National Renewable Energy Laboratory for the Department of Energy, May 2012

Why FleetDASH?

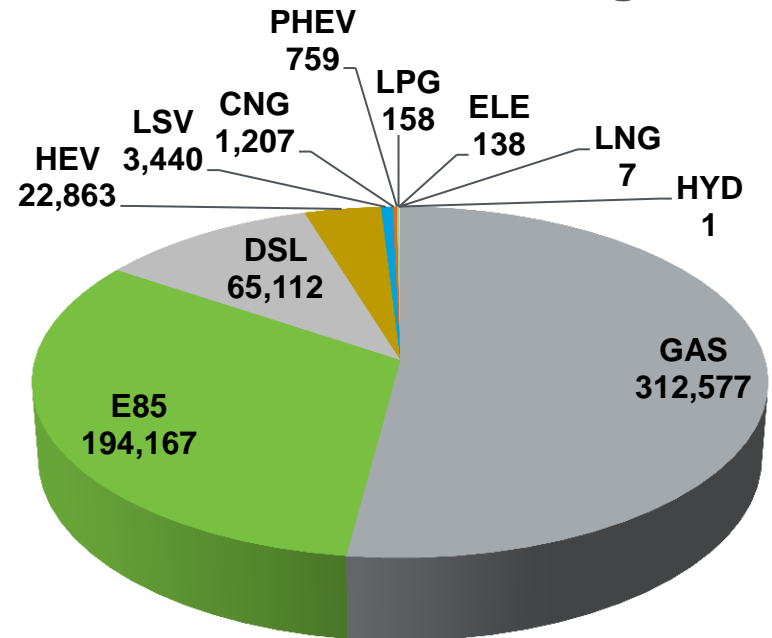
Existing Alternative fuel consumption requirements

- Dual-fuel vehicles must operate on alternative fuel unless a vehicle receives a waiver from DOE
 - EPCA 2005, section 701
- Covered Federal fleet fueling centers must install at least one renewable fuel pump (E85, B20 or greater, or electricity from renewable sources)
 - EISA 2007, section 246

Total FY 2015 AFV Acquisitions by covered Federal Agencies

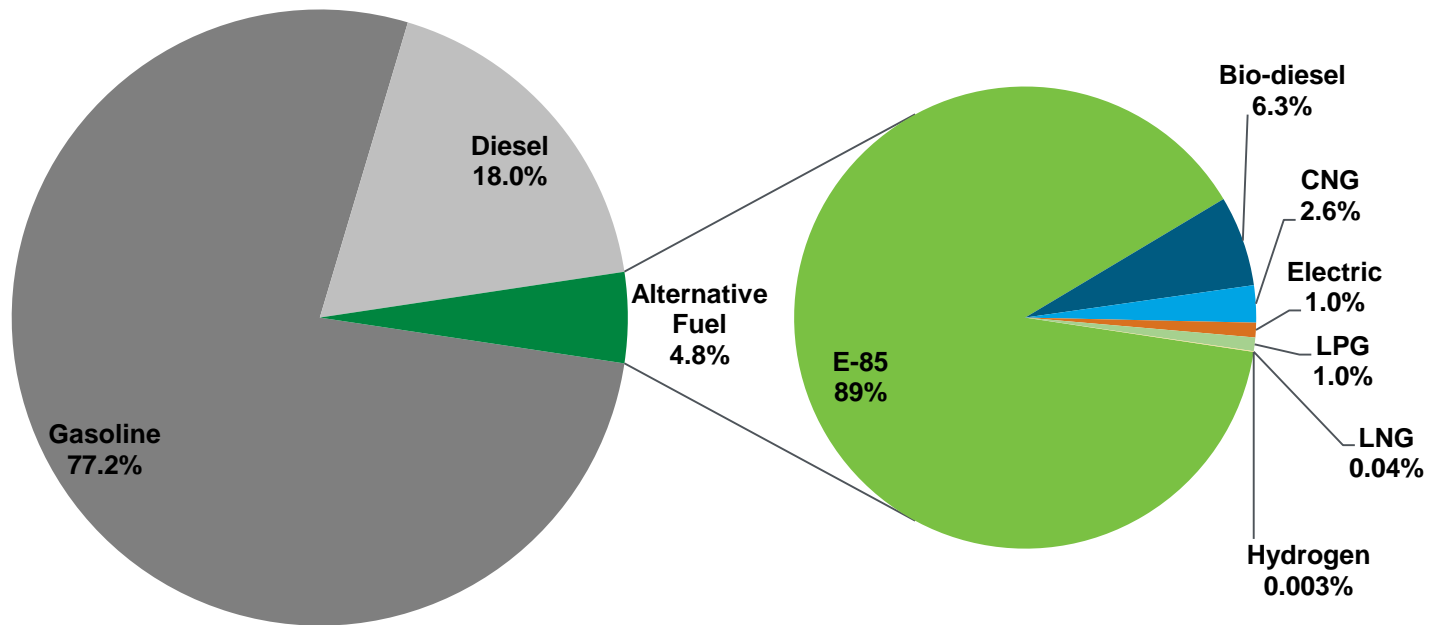


Total FY 2015 AFV Inventory of covered Federal Agencies



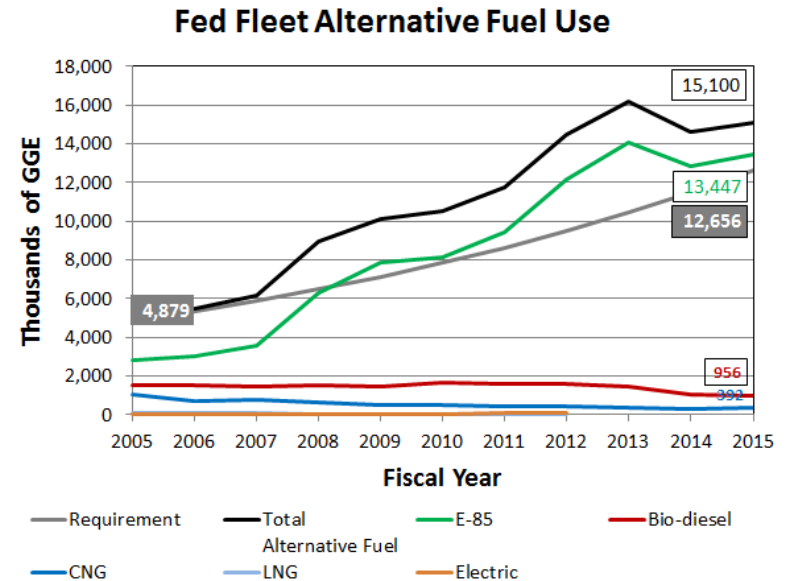
37% of the Federal fleet is comprised of AFVs

FY 2015 Total Fuel Use (GGE)



AFV's comprise **37%** of all Federal vehicles, but
Alternative Fuel is **4.8%** of total Federal fuel use.

Federal fleet alternative fuel use has increased since 2005



E85 use in existing FFVs is a significant GHG reduction opportunity

As of December 2016 FleetDASH agencies could achieve:

- Quadruple E85 use
- 2.2 million additional E85 GGEs per month
- 10% further reduction in petroleum use
- 9% reduction in GHGs

FleetDASH Tour

Welcome to FleetDASH! Specific organizational and vehicle summaries can be found by drilling down through the Fleet Summary Table, the Vehicle Summary Table, or by clicking the Search button in the upper right corner.

Fuel Use

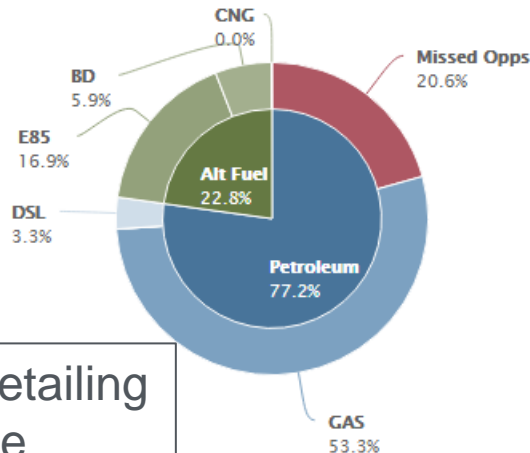
Inventory

Greenhouse Gas

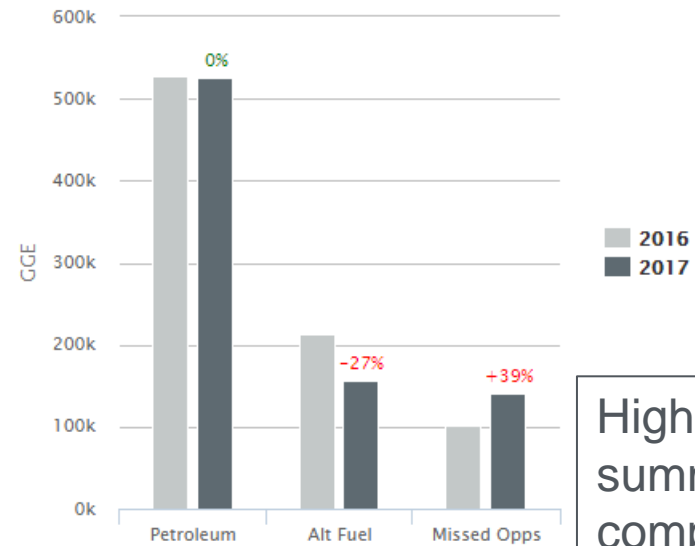
Fuel Used by Type (FY 2017 to Date)

The Fuel Used by Type pie chart displays the portions of total fuel use that are petroleum or alternative fuels. The Comparison to Prior Fiscal Year chart shows total fuel use this fiscal year compared to the same time last fiscal year. Missed opportunities display the quantities of petroleum that could have been displaced by using alternative fuel.

Fuel Used by Type



Comparison to Prior Fiscal Year



* Comparison through November

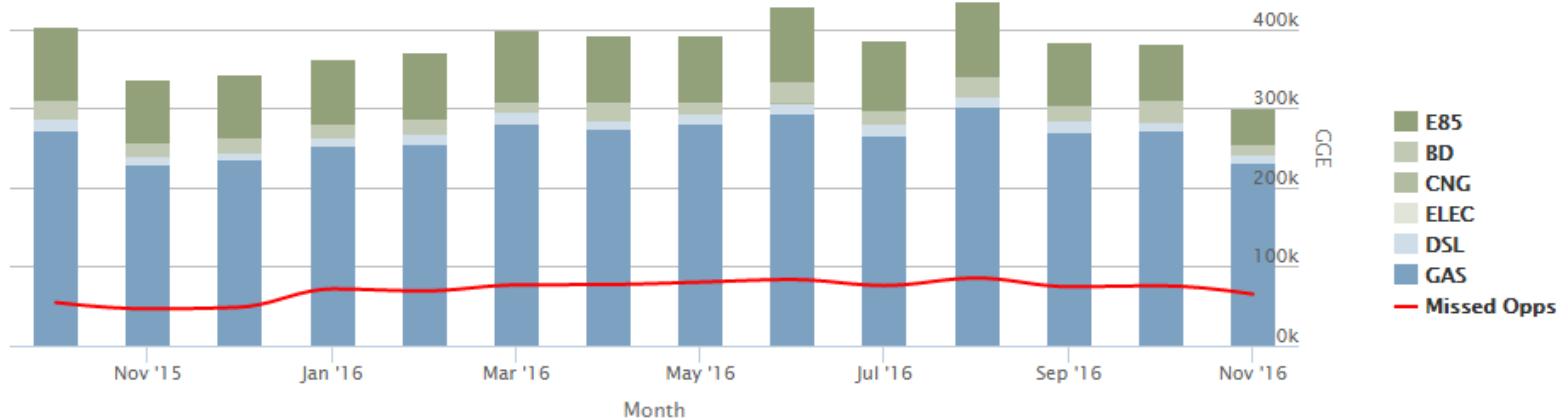
High level
summary
comparison to
the prior year

Pie Chart detailing
Year-to-Date
Alternative and
Petroleum Fueling

Monthly Total Fuel Consumption

The monthly comparison chart displays trends in fuel consumption by each fuel type. Missed opportunities are shown as a line on the chart in comparison to the fuel use quantities. Fuel types can be included or excluded from the chart by clicking on the fuel type in the legend.

Zoom 6m 1y All



Missed Opportunities are shown as a red line in comparison to fueling pattern.

Summary Table

Fuel consumption is summarized for each fleet in the following table. The percentage of total fuel use is included for each fuel type. Clicking on a fleet will refresh the above charts with summary data and repopulate the fleet and vehicle tables for the entity selected.

Search:

Fleet	Petroleum		Alt Fuels		Total FYTD Fuel Use GGE	Missed Opportunities	
	FYTD GGE	% of Total Fuel Use	FYTD GGE	% of Total Fuel Use		FYTD GGE	% of Total Fuel Use
	52,763	87	7,789	13	60,552	30,125	50
	58,056	56	45,248	44	103,303	21,717	21
	60,284	42	82,967	58	143,251	18,086	13
	47,523	98	905	2	48,428	16,187	33
	46,264	99	320	1	46,584	14,765	32
	69,714	100	87	0	69,801	13,441	19
	52,856	98	1,017	2	53,874	12,215	23
	53,211	99	666	1	53,877	5,676	11
	43,256	100	43	0	43,299	3,226	7
	17,964	80	4,367	20	22,331	2,552	11

Fleet Names are
clickable to drill-
down into the
organization.

35

← Previous 1 2 Next →

Fuel Use

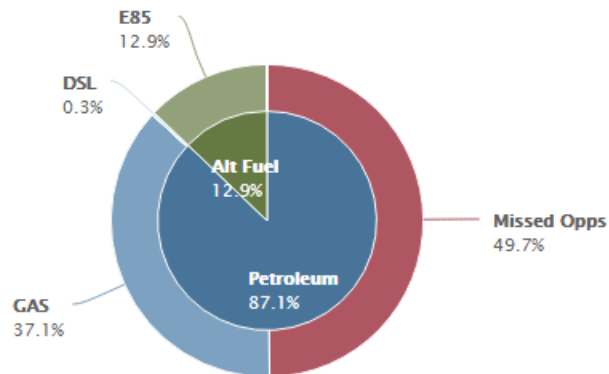
Inventory

Greenhouse Gas

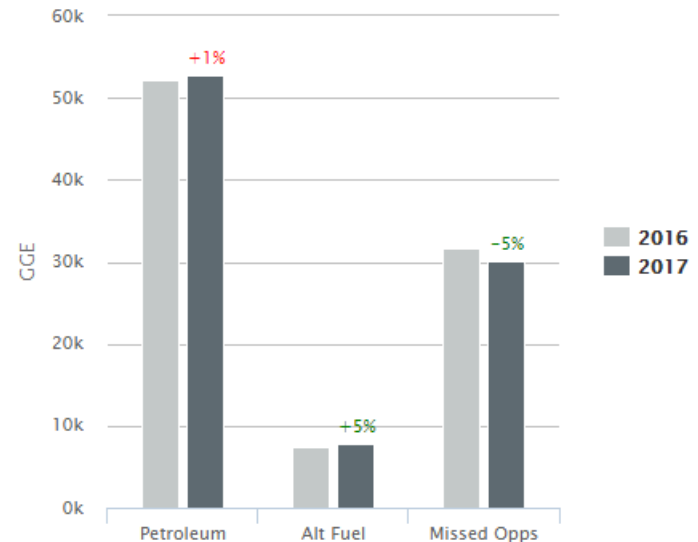
Fuel Used by Type (FY 2017 to Date)

The Fuel Used by Type pie chart displays the portions of total fuel use that are petroleum or alternative fuels. The Comparison to Prior Fiscal Year chart shows total fuel use this fiscal year compared to the same time last fiscal year. Missed opportunities display the quantities of petroleum that could have been displaced by using alternative fuel.

Fuel Used by Type



Comparison to Prior Fiscal Year



* Comparison through November

FleetDASH data views refreshed with lower level organizational summary

Vehicle Summary Table

Fuel consumption is summarized for each vehicle in the following table. The percentage of total fuel use is included for each fuel type. Clicking on a vehicle will take you to a vehicle summary page which includes details and transactions for the selected vehicle.

[Download Vehicle Summary CSV](#)

Show totals for: FYTD

Tag	Vehicle Fuel Type	Petroleum		Alt Fuels		Total Fuel Use GGE	Missed Opportunities	
		GGE	% of Total Fuel Use	GGE	% of Total Fuel Use		GGE	% of Total Fuel Use
G43-3198S	FFV	376	96	16	4	392	330	84
G41-3646S	FFV	304	100	0	0	304	304	100
G41-4626P	FFV	231	100	0	0	231	231	100
G13-3848S	FFV	285	97	9	3	293	225	77
G41-4121S	FFV	279	100	0	0	279	222	80
G41-4740R	FFV	285	100	0	0	285	207	72
G13-2520S				0	0	259	200	77
G61-1195S				0	0	232	195	84
G10-4797P				0	0	207	195	94
G61-1351P				0	0	205	192	93

Vehicle Tag numbers
are clickable to present
vehicle specific data.

Showing 1 to 10 of 636 entries

← Previous 1 2 3 4 5 Next →

Vehicle G41-4626P

SEARCH

Show totals for: FYTD ▼

Vehicle Fuel Type	Petroleum		Alt Fuels		Total Fuel Use GGE	Missed Opportunities	
	GGE	% of Total Fuel Use	GGE	% of Total Fuel Use		GGE ▼	% of Total Fuel Use
FFV	231	100	0	0	231	231	100

Showing 1 to 1 of 1 entries

← Previous 1 Next →

G41-4626P Vehicle Details

Vehicle Attributes

Organization Code: [REDACTED]

Tag: G41-4626P

VIN: 2C4RDGBG4ER390130

SIN: 20.11DA

Fuel Type: FFV

Vehicle Type: LD Minivan 4x2 (Passenger)

Year: 2014

Make/Model: DODGE/GRCARAVAN

Date Assigned: 6/6/2014

Avg. Monthly Mileage: 1905

Garage ZIP: 64153

Emergency Response: No

Law Enforcement: No

Point of Contact

Name: [REDACTED]

Bureau: [REDACTED]

Address 1: [REDACTED]

Address 2: [REDACTED]

Address 3: [REDACTED]

City: [REDACTED]

State: [REDACTED]

Zip: [REDACTED]

Phone: [REDACTED]

Email: [REDACTED]

Garage ZIP: [REDACTED]

Vehicle fuel summary data is presented along with available vehicle attribute information.

Vehicle G41-4626P

SEARCH

Show totals for: FYTD ▼

Vehicle Fuel Type	Petroleum		Alt Fuels		Total Fuel Use GGE	Missed Opportunities	
	GGE	% of Total Fuel Use	GGE	% of Total Fuel Use		GGE ▼	% of Total Fuel Use
FFV	231	100	0	0	231	231	100

Showing 1 to 1 of 1 entries

← Previous 1 Next →

G41-4626P Vehicle Details

G41-4626P Refueling Transactions

Individual transactions for the selected vehicle are listed below. The type and quantity of fuel purchased is given. The "Alternate Station" link for each transaction will take you to the Alternative Fueling Station Locator on the Alternative Fuels Data Center where you can search for nearby alternative fuel. If the transaction was a missed opportunity, you will see the alternative fuel stations within 5 miles of the transaction.

[Download CSV](#)

Search:

Station Name	Address	City	State	Zip	Fuel Type Purchased	Date	GGEs Purchased	Missed Opportunity	Alternate Station
Caseys Gen. Store 16	669 W ELM ST	Lebanon	MO	65536	GAS	11/29/2016	16	Yes	Alternate Station
Kum & Go #456	656 N. JEFFERSON	Lebanon	MO	65536	GAS	11/22/2016	17	Yes	Alternate
Kum & Go #569	2587 N RANGE LINE RD	Webb City							
Champion Express	1840 SOUTH JEFFERSON	Lebanon							

Individual vehicle transactions are presented. Those transactions that occurred as Missed Opportunities include a link to the Alternative Fuel Station location.

The Alternate Station location link takes the user to the AFDC station locator with the specific available alternative fuel station location highlighted.

Alternative Fueling Station Locator

Find alternative fueling stations near an address or ZIP code or along a route in the United States. Enter a state to see a station count or see [stations data by state](#).

The screenshot displays the 'Find Stations' tab of the Alternative Fueling Station Locator. The search bar contains the coordinates '37.67018650000001,-92' and a 'Go' button. Below the search bar, a dropdown menu shows 'Ethanol (E85)' with a 'more search options' link. The results list two stations: 'Break Time Convenience Store #3150' and 'East Gate Express'. The map on the right shows the location of these stations near Lebanon, MO, with a blue circle highlighting the area around the search results.

Find Stations Plan a Route

Q 37.67018650000001,-92 Go

Ethanol (E85) more search options

Ethanol stations near
37.67018650000001,-92.665421 (669 W
ELM ST Lebanon MO 65536)
Excluding private stations
Within 5 miles

A Break Time Convenience Store #3150
101 E 7th St
Lebanon, MO 65536
Phone: 417-532-0975
Fuel: Ethanol (E85)
Distance: 1.1 mi

B East Gate Express
22993 Professional Ln
Lebanon, MO 65536
Phone: 417-532-8112

Embed Submit New Station

Map data ©2017 Google Terms of Use



[Go to mobile version](#)
[Download iPhone app](#)

[Download Data](#) [Developer APIs](#)
Data last updated: 01/11/2017

Fuel Use

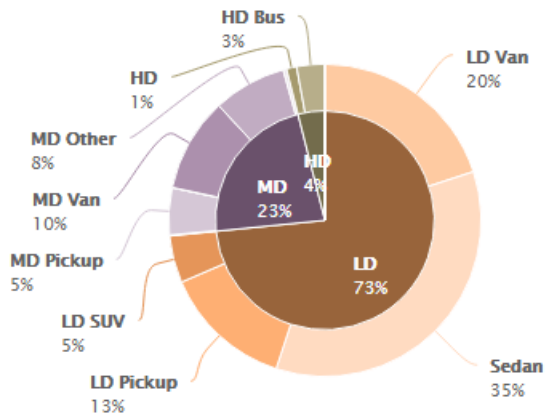
Inventory

Greenhouse Gas

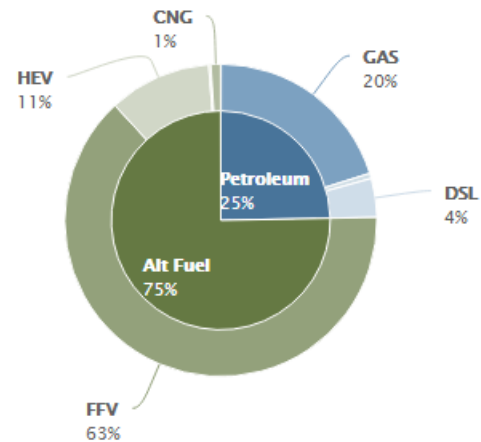
Inventory Breakdowns

The vehicle inventory pie charts display the portions of the fleet that are comprised of the different vehicle weights and types and the different fuel types.

Vehicle Weight and Type



Vehicle Fuel Type



Fleet inventory breakdowns display fleet composition by vehicle type and fuel type.

Inventory for December 2016



Inventory vehicle counts are provided for each fleet in the following table. Clicking on a fleet will refresh the above charts with summary data and repopulate the table for the entity selected.

[Download CSV](#)

Search:

Node	Count	Net Change From Prior Month	LE/ER	Avg. Vehicle Age
WFO	1,598	-12	58	2
WFO / O&M	1,387	-25	49	2
WFO / O&M / North America / O&M / O&M	663	-2	0	1
WFO / O&M / North America / O&M / O&M	647	0	0	1
WFO / O&M / North America / O&M / O&M	627	0	0	1
WFO / O&M / North America / O&M / O&M	574	-3	0	1
WFO / O&M / North America / O&M / O&M	557	-4	0	1
WFO / O&M / North America / O&M / O&M	505	2	3	3
WFO / O&M / North America / O&M / O&M	478	1	0	1
WFO / O&M / North America / O&M / O&M	426	1	0	2
TOTALS	8,234	-44	111	2

Showing 1 to 10 of 15 entries

← Previous 1 2 Next →

Fleet inventory summaries display simple summaries and allow drill-down.

Latest Updates

Stations with known fuel coding issues can now be flagged

Station Name	Address	City	State	Zip	Fuel Type Purchased	Date	GGEs Purchased	Missed Opportunity	Alternate Station
Shell Service Statio	17951 S HALSTEAD RD	Homewood	IL	60430	GAS	10/28/2016	10	Yes (FC)	Alternate Station
Shell Service Statio	17951 S HALSTEAD RD	Homewood	IL	60430	GAS	10/24/2016	10	Yes (FC)	Alternate Station

FC - Fuel coding issues have been reported at this station which caused E85 purchases to appear as gasoline purchases.

Contact Mark.Singer@nrel.gov with known fuel coding issues

Now possible to filter vehicle data by month in the Vehicle Summary Table

Vehicle Summary Table

Fuel consumption is summarized for each vehicle in the following table. The percentage of total fuel use is included for each fuel type. Clicking on a vehicle will take you to a vehicle summary page which includes details and transactions for the selected vehicle.


[Download Vehicle Summary CSV](#)

Show totals for:

FYTD
FYTD
October 2016
September 2016
August 2016
July 2016
June 2016
May 2016

Tag	Vehicle Fuel Type	Petroleum		Alt Fuels		Total Fuel Use GGE	Missed C	
		GGE	% of Total Fuel Use	GGE	% of Total Fuel Use		GGE	%

... and pull transaction level summaries for an organization rather than only a specific vehicle

Vehicle Summary Table 

Fuel consumption is summarized for each vehicle in the following table. The percentage of total fuel use is included for each fuel type. Clicking on a vehicle will take you to a vehicle summary page which includes details and transactions for the selected vehicle.

[Download Vehicle Summary CSV](#) [Download Vehicle Fuel Transactions CSV](#)

Show totals for:

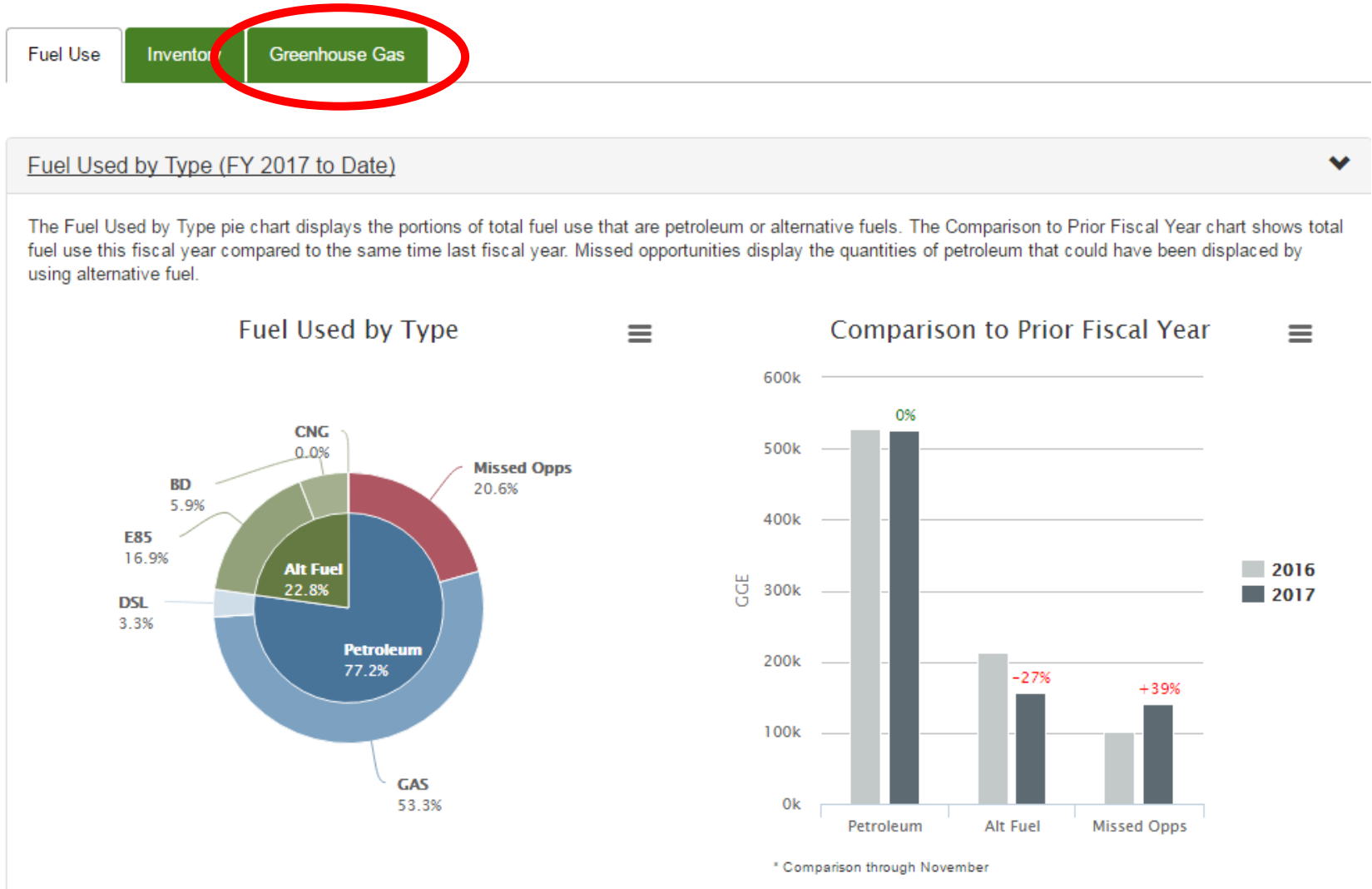
Tag	Vehicle Fuel Type	Petroleum		Alt Fuels		Total Fuel Use	Missed Opportunities	
		GGE	% of Total Fuel Use	GGE	% of Total Fuel Use		GGE	% of Total Fuel Use

“Download Vehicle Fuel Transactions CSV” provides a file with all the transaction data for the chosen organization.

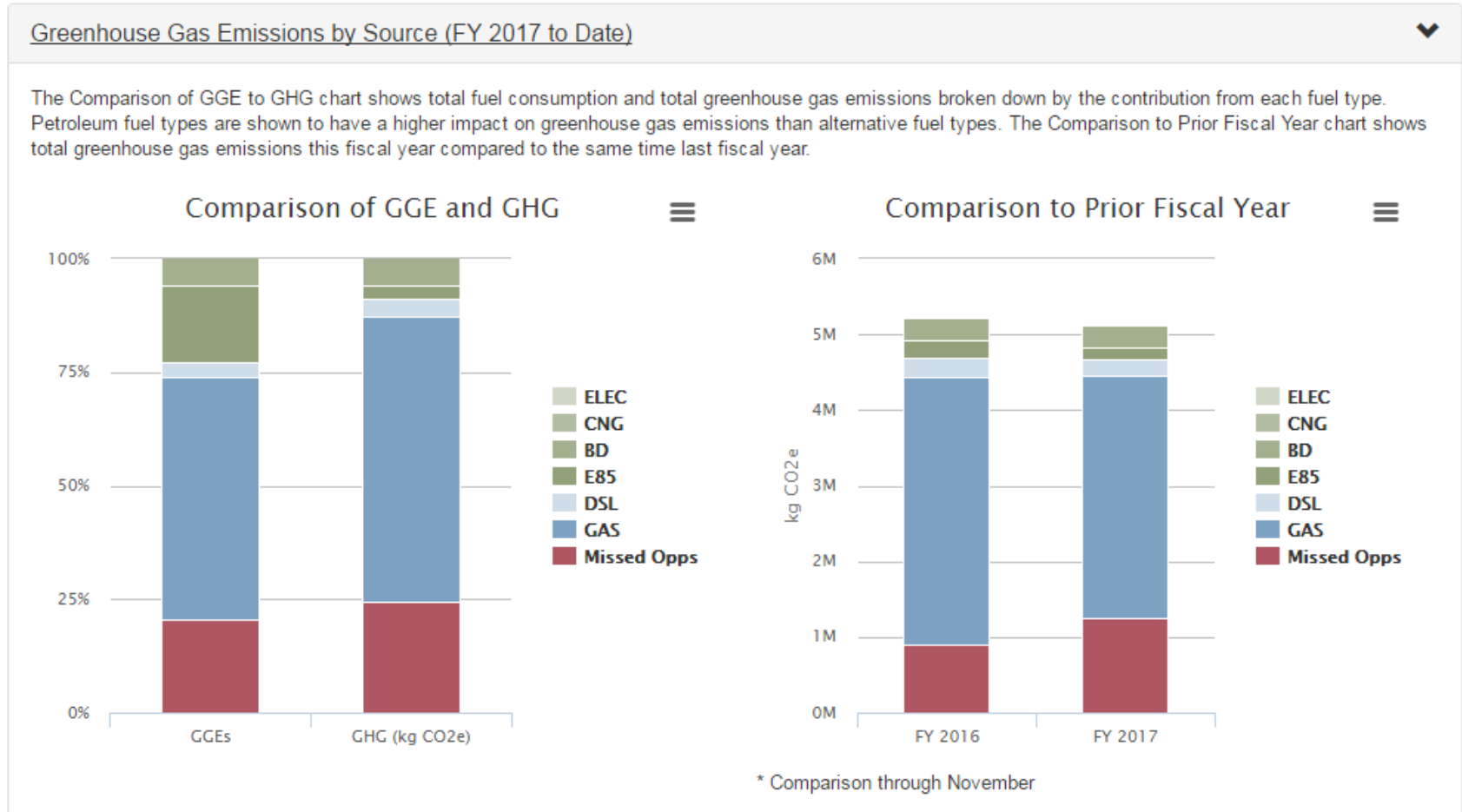
*In order for the link to show up the user must select a month and be at the lowest level of the organization (i.e. the BOAC level).

GHG Tracking

Access the greenhouse gas views through Greenhouse Gas tab



Compare the impact of various fuel types on fuel use totals versus greenhouse gas totals



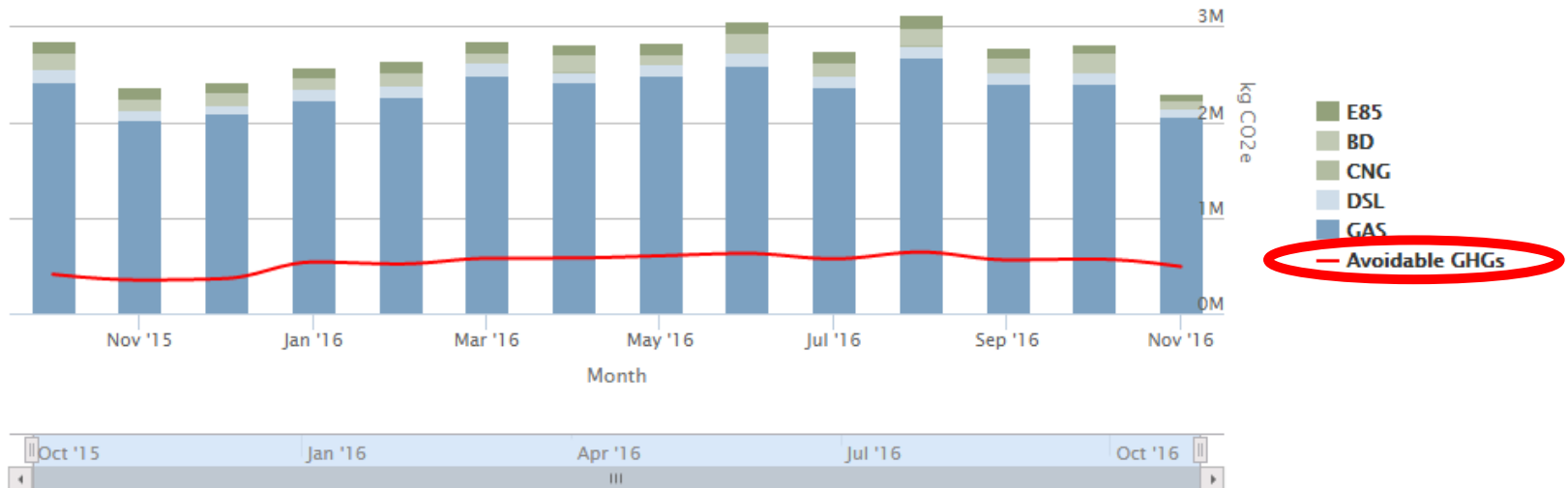
Compare current year performance to the prior year

Track monthly greenhouse gas emissions trends

Monthly Total Greenhouse Gas Emissions

The monthly comparison chart displays trends in greenhouse gas emissions by each fuel type. Avoidable greenhouse gases are shown as a line on the chart in comparison to the fuel type quantities. Fuel types can be included or excluded from the chart by clicking on the fuel type in the legend.

Zoom 6m 1y All



Identify the portion of emissions that could be **avoided** if missed opportunities were reduced

Avoidable GHGs = represent the potential emissions savings if missed opportunities were converted to the appropriate alternative fuel purchase

Identify organizations with high/low emissions

Summary Table



Fuel consumption and greenhouse gas emissions are summarized for each fleet in the following table. Clicking on a fleet will refresh the above charts with summary data and repopulate the fleet and vehicle tables for the entity selected.

Search:

Fleet	FYTD GGEs				GHG (kgCO ₂ e)	Avoidable GHGs from Missed Opportunities (kgCO ₂ e)	Number of Vehicles with Transactions	Average GGE/ Vehicle	Average kgCO ₂ e/ Vehicle	Average kgCO ₂ e/ GGE
	Petroleum	Alt Fuel	Total Fuel	Missed Opportunities						
Alabama	10,089	569	10,658	1,987	91,649	14,947	137	78	669	8.6
Alabama Dept of Transportation	17,964	4,367	22,331	2,552	165,833	19,045	327	68	507	7.4
Alabama Dept of Transportation Birmingham	47,523	905	48,428	16,187	422,669	121,788	417	116	1,014	8.7
Alabama Dept of Transportation Montgomery	58,056	45,248	103,303	21,717	619,185	163,401	1,079	96	574	6.0

Identify concentrations of emissions and opportunities to **avoid** emissions through reducing missed opportunities

Drilldown to individual vehicles

Vehicle Summary Table



Fuel consumption and greenhouse gas emissions are summarized for each vehicle in the following table. Clicking on a vehicle will take you to a vehicle summary page which includes details and transactions for the selected vehicle.

[Download Vehicle Summary CSV](#)

Show totals for:

Tag	FYTD GGEs				GHG (kg CO2e)	Avoidable GHGs from Missed Opportunities (kgCO2e)	Average kgCO2e/GGE
	Petroleum	Alt fuel	Total Fuel	Missed Opportunities			
G11-0460R	620	0	620	620	5,492	4,664	8.9
G42-1997S	849	0	849	595	7,530	4,474	8.9
G11-0830P	558	0	558	558	4,943	4,198	8.9
G42-2108S	538	0	538	538	4,766	4,048	8.9
G11-0403R	461	0	461	461	4,084	3,469	8.9

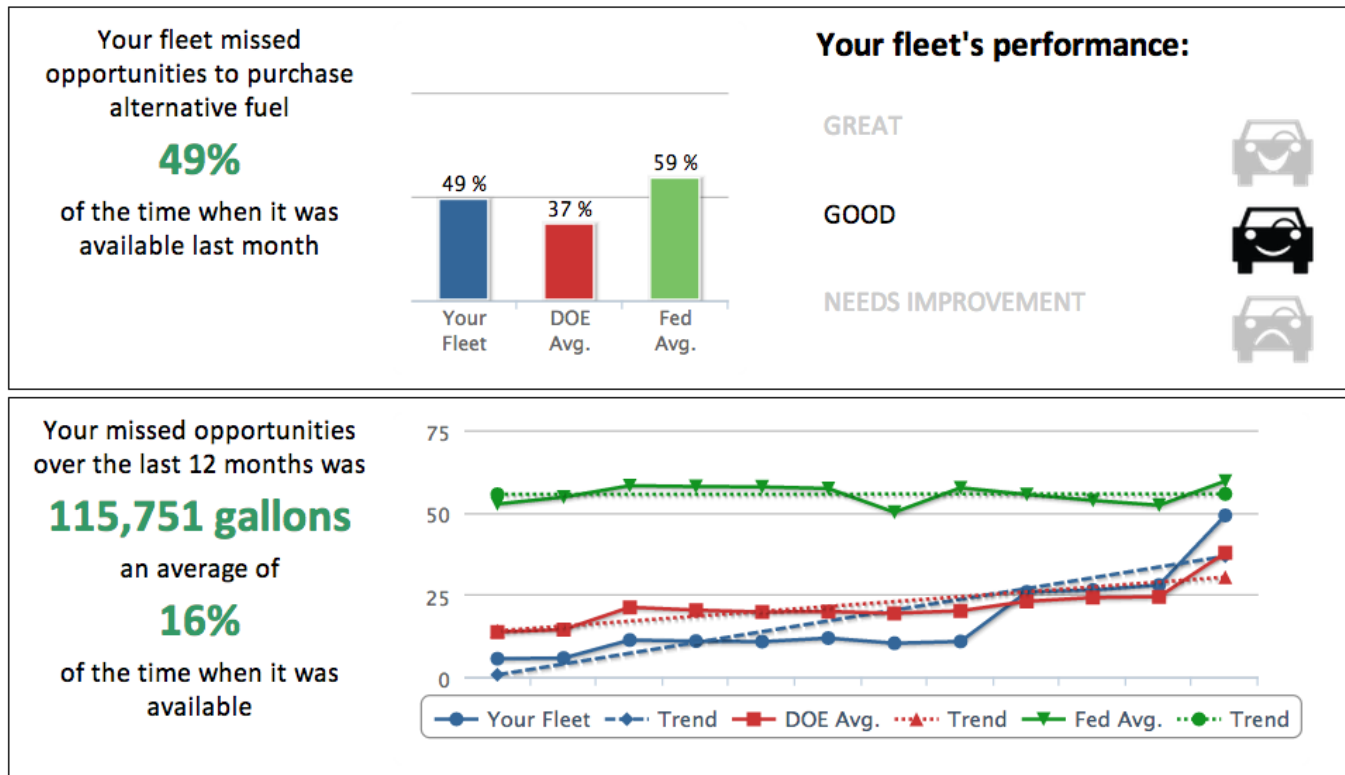
Compare rates of greenhouse gas emissions by vehicle and identify opportunities to ***avoid*** emissions

Summary:

Greenhouse gas metrics in FleetDASH allow users to:

- Understand how fuel use converts to emissions
- Identify concentrations and rates of emissions
- Identify the scale of the opportunity to reduce emissions through alternative fuel use

FleetDASH Monthly Performance Feedback Emails



Review Your Missed Opportunities



Read Alternative Fuel Use Requirements for Federal Fleets



Get Trained on Alternative Fuel Use Requirements

- Multiple email formats: Positive vs. Negative & Peer to peer vs. Individual
- Monitor the impact on behavior, and adapt

FleetDASH Impact

29 Agencies Using FleetDASH

U.S. DEPARTMENT OF
ENERGY

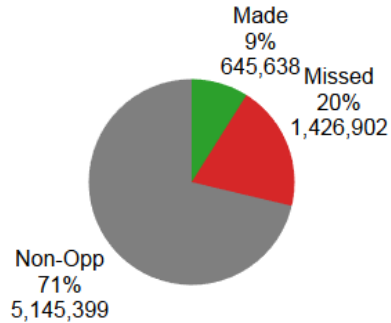
Energy Efficiency &
Renewable Energy



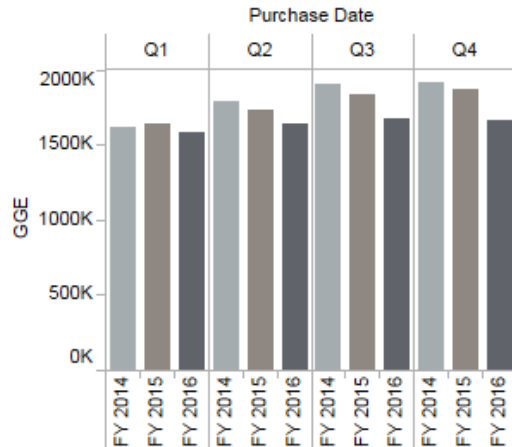
Scale of FleetDASH

	January 2016
Agencies	29
Users	1,400
Unique Vehicles (*includes those that have left the fleet)	~1,000,000
Data Sources	4 (GSA Leased, WEX - USDA, Voyager - USPS, TVA)
% of Federal Fleet	~70%
Unique Station Locations	~200,000
Transactions Processed/Month	~2,000,000

FY 2016

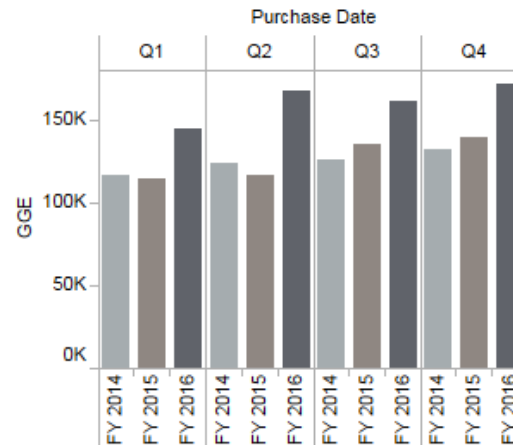


Petroleum Use by Quarter (GGE)



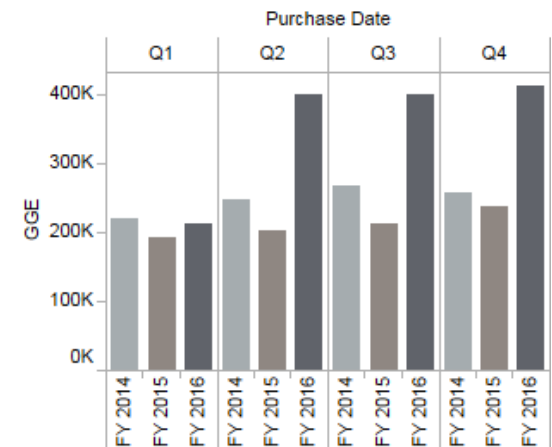
Petroleum use has been cut and lower utilization levels have been maintained

Alternative Fuel Use by Quarter (GGE)



Alternative fuel use has steadily increased.

Missed Opps by Quarter (GGE)

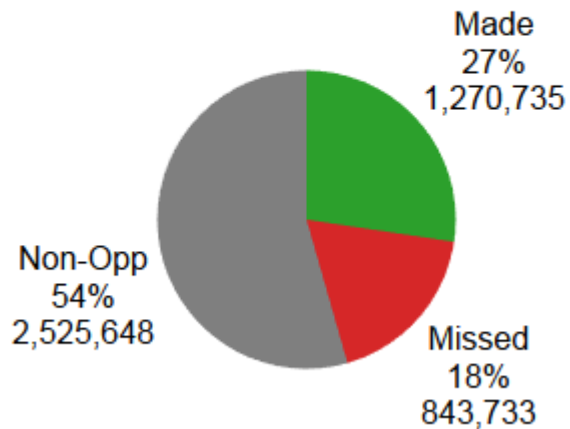


Missed opportunities to use available alternative fuel have been cut

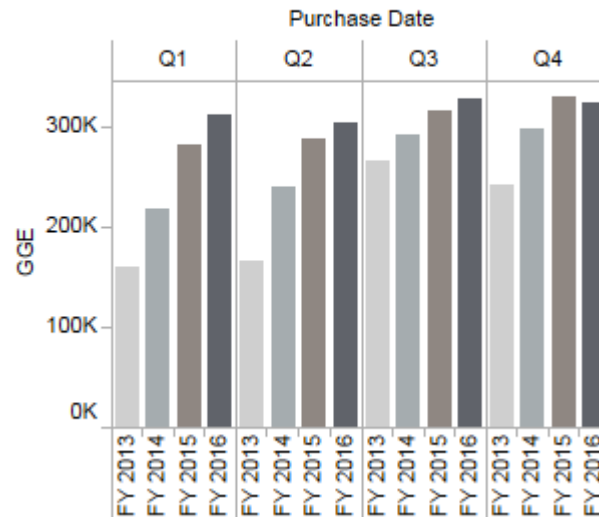
*FY 2016 increase due to capturing agency-owned stations.

The USMC has maintained improvements and continues to increase alternative fuel use.

FY 2016

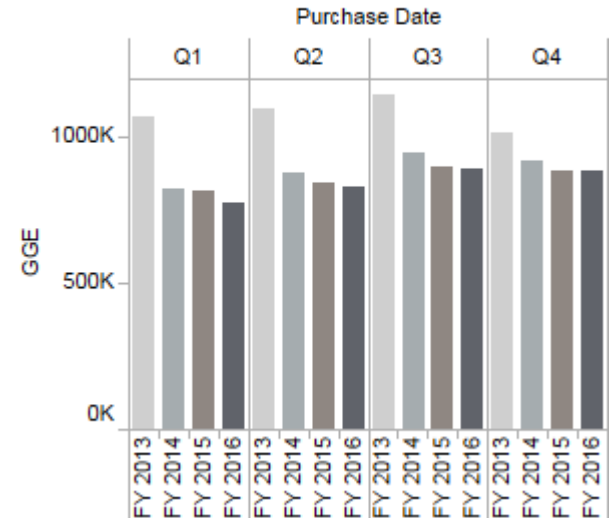


Alternative Fuel Use by Quarter (GGE)



Alternative fuel use has steadily increased.

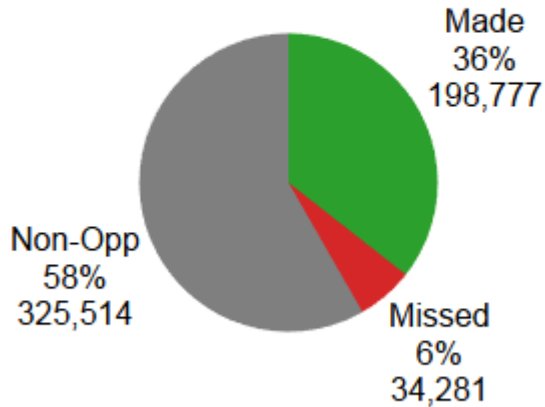
Petroleum Use by Quarter (GGE)



Petroleum use has been cut and lower utilization levels have been maintained

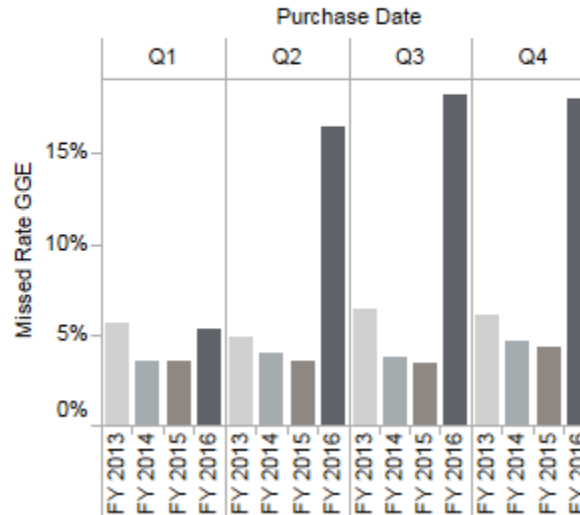
NASA has maintained extremely low rates of missed opportunities.

FY 2016



Missed opportunities to use available alternative fuel are very low.

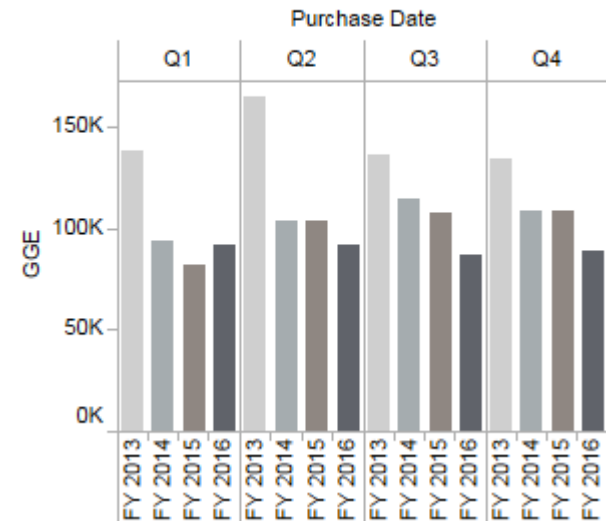
**Missed Opportunity Rate by Quarter
(as a % of Opportunities)**



Rates of missing opportunities to use available alternative have been cut steadily and maintained at low levels.

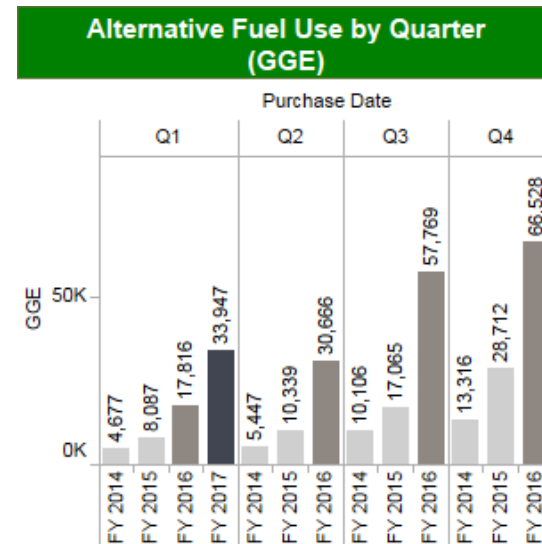
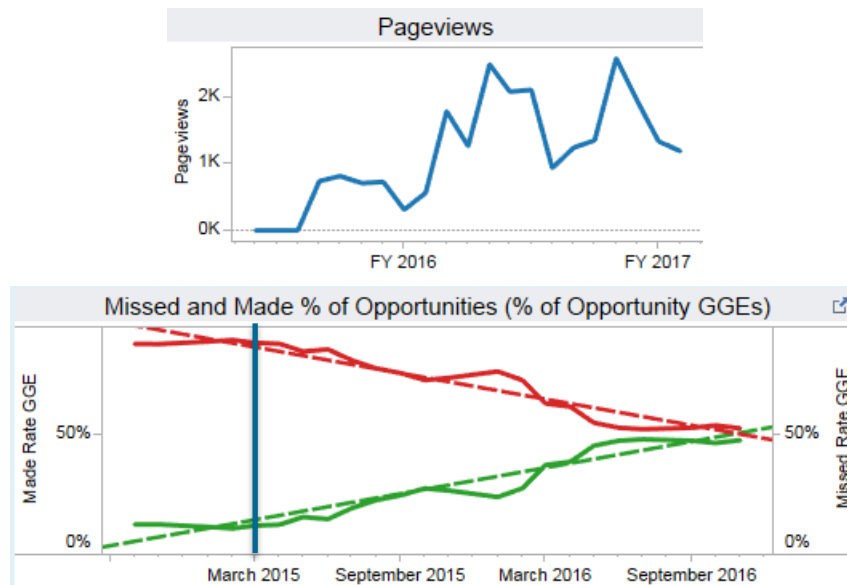
*FY 2016 increase due to capturing agency-owned stations.

**Petroleum Use by Quarter
(GGE)**



Petroleum use has been cut and lower utilization levels have been maintained

The USACE has steadily increased alternative fuel use and decreased missed opportunities since engaging with the tool in March 2015. This improvement will help USACE efforts to achieve the goals of E.O. 13693.



In FY 2016, the GSA leased vehicle portion of the fleet has achieved:

- 112K GGEs of additional E85 use in FY16 compared to FY15
- 165% increase in E85 use
- E85 use increased from 1.7% of total fleet fuel use to 4.5%
- 1,174 MT CO2e reduced

USMC Support Analysis:

DOE FEMP and USMC have partnered on AFV acquisition support.

FleetDASH data is used to create metrics to highlight opportunities for potential AFV deployment.

Metrics and data are intended to support on-the-ground knowledge of vehicle utilization and suitability for AFV deployment.

Flex Fuel Vehicles??

Hybrid Electric Vehicles??

Plug-in Electric Vehicles??

USMC Support Analysis:

FFVs – high percentage of transactions near available E85

FFV Opportunity
Enter E85 Availability %
Minimum % of Transactions with E85 Available (User Entered)
75%

Tag	% of Transactions near E85	FFV Opportunities
G10-2878R	0%	
G10-6848L	94%	FFV
G10-2900R	19%	
G10-5886K	72%	
G10-2901R	0%	
G10-7563F	3%	
G32-0433B	0%	
G32-02006	100%	FFV
G32-02007	100%	FFV
G32-0165G	94%	FFV
G32-0165G	100%	FFV

USMC Support Analysis:

HEVs – high percentage of transactions in metro areas where stop-and-start driving is more likely

HEV Opportunity
Enter CBSA %
Minimum % of Transactions within a metro area (User Entered)
100%

Tag	% of Transactions in CBSA	HEV Opportunities
G10-2186L	91%	
G10-2612R	92%	
G10-2466S	100%	HEV
G12-0124S	90%	
G12-0273S	100%	HEV
G10-2789S	67%	
G10-1977S	100%	HEV
G12-0438S	100%	HEV
G10-0084S	100%	HEV

USMC Support Analysis:

PEVs – consistently return to the same station location and have relatively high annual mileages

EV Opportunity		
Enter values in orange boxes to define boundaries of EV		
Maximum Average Distance Between Consecutive Transactions (User Entered)	Maximum Distance Between Consecutive Transactions (User Entered)	Minimum Annual Mileage (User Entered)
1	10	10,000

Tag	Avg Dist Between Consecutive Transactions	Max Dist Between Consecutive Transactions	Annual Mileage	EV Opportunity
G32-0026F	0.0	0.0	6,516	
G32-0029F	0.0	0.0	6,096	
G32-0319K	0.0	0.0	11,760	EV
G32-0320K	0.0	0.0	13,452	EV
G32-0204P	0.0	3.6	11,148	EV
G32-0249N	0.0	0.0	3,552	
G32-0250N	9.0	148.5	11,880	

Questions??

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NREL

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Back-up

Other Fleet Tools

- Section 701 Training
- Alternative Fuels Data Center
- Station Locator
- Find a Car
- Vehicle Cost Calculator
- Petroleum Reduction Planning Tool

- 15-minute, on-demand training
- EPC Act 2005 § 701 requirement to use alternative fuel
- How to identify dual-fuel vehicles
- How to locate alternative fuel stations

The screenshot displays a web-based training interface. On the left, a sidebar contains an 'Outline' and 'Script' section with a list of 16 topics, including 'Introduction', 'Welcome', 'Training Information', 'Overview of EPC Act 2005', 'Section 701 Requirements', 'Dual-Fuel Vehicles', 'Vehicle Waivers', 'Dual-Fuel Vehicle Exemptions', 'E85 Flex-Fuel Vehicles', 'Find Alternative Fuel Stations', 'Fuel Station Locator Tool', 'Find Alt Fuel Along a Route', 'Plan a Route Tool', 'Identify E85 Fuel Pumps', 'Summary', and 'Assessment'. The main content area features a video player with a blue header bar containing the U.S. Department of Energy logo and 'Energy Efficiency & Renewable Energy'. The video frame shows a gas station sign with a 'fuel' logo and a list of fuel types: Ethanol, Regular, Super, Premium, Diesel, Bio-Diesel, Propane, and Natural Gas. To the right of the video, the text reads: 'FEMP Sustainable Federal Fleets', 'Complying with the EPC Act 2005 Section 701 Requirement to Use Alternative Fuel in Dual-Fuel Vehicles'. The video player controls at the bottom include a progress bar, volume icon, and navigation buttons for 'PREV' and 'NEXT'. The 'e-training' logo is visible in the bottom left of the video frame, and the 'FEMP' logo is in the bottom right. The URL 'femp.energy.gov' is visible in the bottom right corner of the video frame.

https://federalfleets.energy.gov/information_resources#training

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Alternative Fuels Data Center

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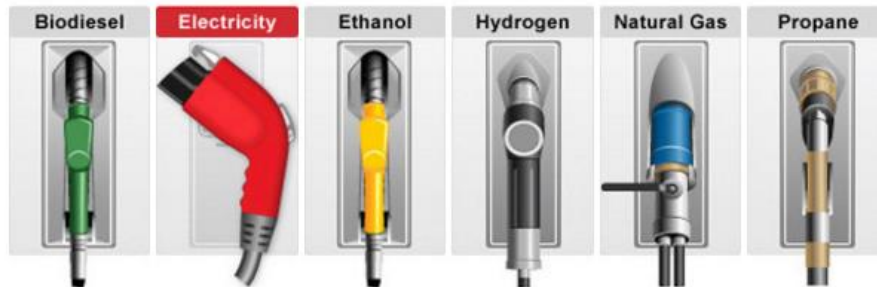
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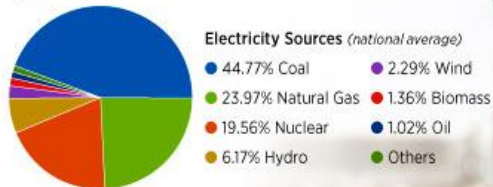
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Fuels & Vehicles ▶



What's powering your EV?



Find out how the source of your electrical power impacts the well-to-wheel emissions of your electric vehicle (EV).

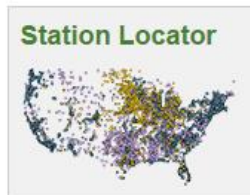
Maps & Data ▶

- U.S. Alternative Fueling Stations by Fuel Type
- Alternative Fuel Vehicles in Use
- U.S. Hybrid Electric Vehicle Sales by Model



Tools ▶

- Laws & Incentives
- Petroleum Reduction Planning Tool
- Vehicle Cost Calculator
- Vehicle Search



Find stations on your iPhone

Information by State ▶

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Alternative Fueling Station Locator

Find alternative fueling stations near an address or ZIP code or along a route in the United States. Enter a state to see a station count.

Find Stations **Plan a Route**

Go

All Fuels

[more search options](#)

21,402
alternative fuel stations
in the United States

Excluding private stations

Location details are subject to change. We recommend calling the stations to verify location, hours of operation, and access.

ABOUT THE DATA

Go to mobile version [Download iPhone app](#)

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Data last updated: 07/20/2016

<http://www.afdc.energy.gov/locator/stations/>

Federal Energy Management Program

femp.energy.gov 52

www.fueleconomy.gov

the official U.S. government source for fuel economy information

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About Hybrid and Electric Cars



A quick guide to the different kinds of hybrids and electric vehicles.

Hybrids

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How Hybrids Work
Can a Hybrid Can Save Me Money?
New & Upcoming
Hybrid Links

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Power Search

Search Make

Hybrids, Diesels, and
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Vehicle Cost Calculator

This tool uses basic information about your driving habits to calculate total cost of ownership and emissions for makes and models of most vehicles, including alternative fuel and advanced technology vehicles. Also see the cost [calculator widgets](#).

Choose vehicles to compare

Select up to eight vehicles to compare from the makes and models below or [create your own custom vehicle](#).

2017

Make

Model

ADD >>

[Create Custom Vehicle](#)

Tell us how you use your car

Because vehicle efficiencies vary depending on how you use your car, this information allows the tool to more accurately calculate fuel usage.

Normal Daily Use

Average daily driving distance

34

miles

Days per week

5

Weeks per year

49

Percent highway

45

Other Trips

Annual mileage

3596

miles

Percent highway

80

Annual Driving Distance

11926 miles

City Distance

5301 miles

Highway Distance

6625 miles

<http://www.afdc.energy.gov/calc/>

Federal Energy Management Program

femp.energy.gov 54

Alternative Fuels Data Center

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Petroleum Reduction Planning Tool

This planning tool helps your vehicle fleet reduce petroleum consumption and greenhouse gas (GHG) emissions. Create a comprehensive plan for your fleet by using several savings methods. If your fleet includes multiple vehicle types, add more vehicles to each method.

My Current Plan

Savings Methods		Petroleum Reduction gal/yr	GHG Reduction tons CO ₂ /yr	Fuel Cost Savings \$/yr	Impact on Plan percent
Replace Vehicles	<input type="button" value="ADD TO PLAN"/>	0	0	\$0	0%
Use Alternative Fuel in Existing Vehicles	<input type="button" value="ADD TO PLAN"/>	0	0	\$0	0%
Reduce Idling	<input type="button" value="ADD TO PLAN"/>	0	0	\$0	0%
Reduce Mileage	<input type="button" value="ADD TO PLAN"/>	0	0	\$0	0%
Drive Efficiently	<input type="button" value="ADD TO PLAN"/>	0	0	\$0	0%
Total savings from plan per year		0 gallons	0 tons of CO ₂	\$0	100%

Annual Petroleum Reduction

gallons

Annual Greenhouse Gas Reduction

tons of CO₂

● Petroleum reduction goal

- 15-minute, on-demand training
- EAct 2005 § 701 requirement to use alternative fuel
- How to identify dual-fuel vehicles
- How to locate alternative fuel stations

The screenshot displays a web-based training interface. On the left, a sidebar titled 'Outline Script' lists 16 topics, with '1. Introduction' selected. The main content area features a header with the U.S. Department of Energy logo and the text 'Energy Efficiency & Renewable Energy'. Below this, a large image shows a gas station sign with a 'fuel' logo and a list of fuel types: Ethanol, Regular, Super, Premium, Diesel, Bio-Diesel, Propane, and Natural Gas. To the right of the image, the title 'FEMP Sustainable Federal Fleets' is displayed, followed by the subtitle 'Complying with the EAct 2005 Section 701 Requirement to Use Alternative Fuel in Dual-Fuel Vehicles'. At the bottom of the main area, there is a blue bar with the 'etraining' logo and a grey bar with the 'FEMP' logo and 'Federal Energy Management Program' text. The bottom of the interface includes a video player control bar with a play button, a progress bar, and 'PREV' and 'NEXT' buttons.

Outline Script

1. Introduction
2. Welcome
3. Training Information
4. Overview of EAct 2005
5. Section 701 Requirements
6. Dual-Fuel Vehicles
7. Vehicle Waivers
8. Dual-Fuel Vehicle Exemptions
9. E85 Flex-Fuel Vehicles
10. Find Alternative Fuel Stations
11. Fuel Station Locator Tool
12. Find Alt Fuel Along a Route
13. Plan a Route Tool
14. Identify E85 Fuel Pumps
15. Summary
16. Assessment

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**FEMP Sustainable
Federal Fleets**

Complying with the EAct 2005
Section 701 Requirement to Use
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< PREV NEXT >